



## NEW MEXICO

### ENVIRONMENT DEPARTMENT

#### Ground Water Quality Bureau

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#### GROUND WATER QUALITY BUREAU DISCHARGE PERMIT – MODIFICATION Issued under 20.6.2 NMAC

**Facility Name:** Sensient Natural Ingredients  
**Discharge Permit No:** DP-877  
**Facility Location:** 3225 Highway 418 SW  
Section 6, Township 24S, Range 09W  
**County:** Luna County  
**Operator/Manager:** Mark Halvorsen, Director EHS – North America  
**Mailing Address:** Sensient Technologies Corporation  
5119 Sedge Boulevard  
Hoffman Estates, IL 60169  
**Permitting Action:** Modification  
**Source Classification:** Agriculture – Crop/Food Processing  
**Permit Issuance Date:** December 22, 2017  
**Permit Expiration Date:** December 21, 2022  
**NMED Permit Contact:** Sarah Schnell  
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## **PART A     GENERAL INFORMATION**

### **A100     Introduction**

- A. The New Mexico Environment Department (NMED) issues this Discharge Permit Modification (Discharge Permit)], **DP-877**, to Sensient Natural Ingredients (Permittee) pursuant to the New Mexico Water Quality Act (WQA), NMSA 1978, §§ 74-6-1 through 74-6-17, and the New Mexico Ground and Surface Water Protection Regulations, 20.6.2 NMAC. NMED's purpose in issuing this Discharge Permit is to control the discharge of water contaminants from the Sensient Natural Ingredients (Facility) for the protection of groundwater and those segments of surface water gaining from groundwater inflow, for present and potential future use as domestic and agricultural water supply and other uses, and to protect public health.
- B. The Permittee is discharging up to 150,000 gallons per day (gpd) of effluent from the Sensient Natural Ingredients facility. This discharge or leachate may move directly or indirectly into groundwater of the State of New Mexico which has an existing concentration of 10,000 milligrams per liter (mg/L) or less of total dissolved solids (TDS) within the meaning of 20.6.2.3104 and 20.6.2.3101(A) NMAC. These discharges may contain water contaminants or toxic pollutants elevated above the standards of 20.6.2.3103 NMAC in compliance with the terms and conditions of this Discharge Permit.
- C. In issuing this Discharge Permit, NMED has determined that the Permittee has met the requirements of 20.6.2.3109(C) NMAC. Pursuant to 20.6.2.3104 NMAC, it is the Permittee's responsibility to comply with the terms and conditions of this Discharge Permit; failure to do so may result in enforcement action by NMED (20.6.2.1220 NMAC).

### **A101     Terms of Permit Issuance**

- A. **Permit Duration** - Pursuant to WQA 74-6-5(I) and 20.6.2.3109(H) NMAC, the term of a Discharge Permit shall be for the fixed term of **five years** from the effective date of the Discharge Permit. Modification to an existing Discharge Permit does not change these terms.
- B. **Permit Modification** - Modification(s) to existing DP-877 represented herein consist(s) of an increase in the maximum daily discharge volume from 28,000 gpd to 150,000 gpd, and an increase (or decrease) in the acreage of the land application area from 11 to 25.66 acres which includes the addition of fields: Area 6 and Area 7.
- C. **Permit Fees** – Payment of permit fees is due at the time of Discharge Permit approval. Permit fees shall be paid in a single payment or shall be paid in equal installments on a yearly basis over the term of the Discharge Permit. Single payments shall be remitted to NMED no later than 30 days after the Discharge Permit effective date. Initial installment payments shall be remitted to NMED no later than 30 days after the Discharge Permit effective date; subsequent installment payments shall be remitted to NMED no later than the anniversary of the Discharge Permit effective date. Permit fees are associated with issuance of this Discharge Permit. Nothing in this Discharge Permit relieves the Permittee of the obligation to pay all permit fees assessed by NMED. A Permittee that ceases discharging or does not commence

discharging from the facility during the term of the Discharge Permit shall pay all permit fees assessed by NMED. An approved Discharge Permit shall be suspended or terminated if the facility fails to remit an installment payment by its due date. [20.6.2.3114(F) NMAC, NMSA 1978, § 74-6-5.K]

- D. **Permit Renewal** - To renew this Discharge Permit, the Permittee shall submit, in accordance with 20.6.2.3106 NMAC, an application and any associated fees for renewal, renewal and modification, or renewal for closure at least 120 days before the discharge permit expiration date, unless closure of the facility is approved by NMED before that date.
- E. **Transfer of Ownership** - This Discharge Permit is being issued to Sensient Natural Ingredients as identified in **Section A100** above. In accordance with 20.6.2.3111 NMAC, the Permittee, any listed owner(s) of record, and any [other] holder(s) of an expired discharge permit are responsible for complying with the conditions listed herein. If during the duration of this Discharge Permit a change in the list of responsible persons is required, transfer of ownership shall be completed in accordance with 20.6.2.3111(A).

#### **A102 Applicable Regulations**

- A. **Scope** - This Discharge Permit applies solely for the regulation of process wastewater or stormwater generated from facility operations and does not include regulation of domestic wastewater at the facility. Domestic wastewater generated at the facility is treated or disposed of pursuant to 20.7.3 NMAC.
- B. The discharge from the facility is not subject to any of the exemptions of 20.6.2.3105 NMAC.
- C. Groundwater quality as observed in on-site monitoring wells is subject to the criteria of 20.6.2.3101 and 20.6.2.3103 NMAC unless otherwise specified in this Discharge Permit.
- D. Complying with the applicable requirements of 20.6.2 NMAC does not relieve a facility's owner, operator or Permittee from complying with the requirements of other applicable local, state and federal regulations or laws.

#### **A103 Facility: Physical Description**

- A. This facility is located at 3225 Highway 418 SW, approximately three miles southwest of Deming, in Section 6, Township 24S, Range 09W, in Luna County.
- B. This facility is comprised of the following wastewater system components as identified in the application dated December 7, 2020 and the administrative record which includes the original Discharge Permit issued on October 7, 1992 and subsequently renewed and modified on February 1, 2006, and renewed and modified on December 22, 2017, as of the effective date of this Discharge Permit:
  - 1. Wastewater storage tank/Sump:

- a. **Equalization Tank (EQ Tank)** – a carbon-steel tank with a Geotex Synthetic liner, located outside the southwest side of the processing building, north of the sump and separator, used for storing and controlling the flow of wastewater to the surface disposal area, the dimensions are 31' x 7' and the tank has a 40,000-gallon capacity. The tank was installed in February 2021.
  - b. **Sump** – concrete sump, 6' wide x 4' length x 5' depth, located on the west side of the building south and adjacent to the rotary screen separator, for collecting water prior to being pumped into the separator.
2. Fields within the surface disposal area:
- a. **Area 2 (aka West Field)** – a 500' x 200' rectangular field, approximately 2.30 acres, located north and adjacent to the processing building, discharge is applied by perforated PVC pipe/flood irrigation.
  - b. **Area 3 (aka East Field)** – a 300' x 200' rectangular field, approximately 1.38 acres, located east and adjacent to Area 2, discharge is applied by perforated PVC pipe/flood irrigation.
  - c. **Area 4 (aka South Field)** – a 300' x 200' rectangular field, approximately 1.38 acres, located south of and adjacent to Area 3, discharge will be applied by perforated PVC pipe/flood irrigation.
  - d. **Area 5 (aka North Field)** – a 550' x 800' rectangular field, approximately 10.10 acres, located north and adjacent to the east and west fields, discharge will be applied by perforated PVC pipe/flood irrigation.
  - e. **Area 6** – a 300' x 400' asymmetrical field, approximately 2.75 acres, located south and adjacent of the South Field, discharge will be applied by perforated PVC pipe/flood irrigation.
  - f. **Area 7** – a 1,350' x 250' rectangular field, approximately 7.75 acres, located west and adjacent to the North Field, discharge will be applied by perforated PVC pipe/flood irrigation.

These system components identified are potential sources of groundwater contamination. **Section B100** lists all wastewater system components authorized to discharge under this Discharge Permit.

**A104 Facility: Documented Hydrogeologic Conditions**

- A. Groundwater most likely to be affected at this facility is at a depth of approximately 148 feet and has a total dissolved solids concentration of 320 milligrams per liter.

**PART B DISCHARGE REQUIREMENTS**

**B100 Facility: Authorized Discharge**

- A. NMED authorizes the Permittee to discharge water contaminants as part of facility operations subject to the following requirements:
1. The Permittee is authorized to discharge up to 150,000 gpd of wastewater from the production area of a chile, onion, and garlic, processing facility. Wastewater generated from processing flows via floor drains to a rotary screen solids separator and wash tanks and then to a 40,000 gallon equalization tank for storage prior to flowing into a concrete-lined sump and then pumped and applied to the surface disposal fields via flood irrigation from a perforated PVC pipe to up to 26.1 acres. As a contingency, the permittee has agreed with GWQB, that if the permittee meets or begins to exceed the 200 lbs/acre/year surface disposal area nitrogen loading limit on all of the fields, and having no fields left to apply to without exceeding, the permittee will cease discharging for the remainder of the year to the surface disposal areas.
  2. The Permittee is authorized to apply wastewater to fields within the surface disposal area in accordance with 20.6.2.3109(C) NMAC. The surface disposal area is comprised of the following fields for a total area of 26.1 acres.
    - a. **Area 2** – authorized by the last Discharge Permit (*December 22, 2017*) to receive wastewater and *has* received wastewater as of the effective date of this Discharge Permit.
    - b. **Area 3** – authorized by the last Discharge Permit (*December 22, 2017*) to receive wastewater and *has* received wastewater as of the effective date of this Discharge Permit.
    - c. **Area 4** – authorized by the last Discharge Permit (*December 22, 2017*) to receive wastewater and *has not* received wastewater as of the effective date of this Discharge Permit.
    - d. **Area 5** – authorized by the last Discharge Permit (*December 22, 2017*) to receive wastewater and *has not* received wastewater as of the effective date of this Discharge Permit.
    - e. **Area 6** – not authorized by the last Discharge Permit (*December 22, 2017*) to receive wastewater and *has not* received wastewater as of the effective date of this Discharge Permit.
    - f. **Area 7** – not authorized by the last Discharge Permit (*December 22, 2017*) to receive wastewater and *has not* received wastewater as of the effective date of this Discharge Permit.
- B. This Discharge Permit authorizes only those discharges specified herein. Any unauthorized discharges, such as spills or leaks must be reported to NMED in a corrective action conducted pursuant to 20.6.2.1203 NMAC.

**B101 Existing System Controls**

- A. The following existing system controls at this facility shall be required as described below:

1. **Wastewater Storage Tank and Sump** - The Permittee shall maintain operations of the existing tank and sump as listed in **Section A103** above in accordance with conditions listed in **Table B2** to achieve compliance with this Discharge Permit.
2. **Flow Meters** - The facility measures the volume of wastewater discharged to the surface disposal area/surface disposal area using the following flow meters:
  - a. **Meter #1** – to be located on the discharge line between the Equalization Tank pump and the surface disposal area to measure the volume of wastewater discharged from the Equalization Tank to each field within the surface disposal area.
3. **Monitoring Wells** - The facility uses the following monitoring wells to supply data representative of groundwater quality [20.6.2.3107(A) NMAC]:
  - a. **MW-3** – hydrologically upgradient of Area 2 (aka the West Field) all contamination sources at the facility and located 35' north of the northwest end of Area 2 (aka the West Field).
  - b. **MW-4** – hydrologically downgradient of Area 2 (aka the West Field) and located 40' south of the southeast end of the West Field.
  - c. **MW-5** – intended to be hydrologically upgradient of the north field at the facility, to be located north of the northwest corner of Area 5 (aka the North Field), at 32°14'36.31", -107°48'25.40".
  - d. **MW-6** – intended to be hydrologically downgradient of the facility and located near the southeast corner of the facility at approximately 32° 14" 23'N, 107° 48" 18'W.
  - e. **MW-7** – intended to be hydrologically upgradient of all possible sources of contamination, and located on the northern boundary of the facility at 32° 14" 36' N, 107° 48" 34 W.

**B102 Conditions for Operation**

- A. NMED has reviewed the permit application for the proposed facility and has determined that the provisions of the applicable groundwater quality standards will be met in accordance with this Discharge Permit. General conditions for all Discharge Permits issued by the Ground Water Quality Bureau pursuant to NMAC 20.6.2 are summarized on **Table B1**. Unless otherwise specified in Parts A or B of this Discharge Permit, both the general conditions for a facility discharge permit (as listed in this part) and facility-specific conditions as listed are mandated to assure continued compliance.

**Table B1**  
**General Discharge Permit Conditions:**

Engineering and Surveying
a) Within 180 days following the effective date of this Discharge Permit (by <b>DATE</b> ), the Permittee shall submit an up-to-date diagram of the layout of entire facility to NMED. The diagram shall include the following elements:

**Table B1**  
**General Discharge Permit Conditions:**

<ul style="list-style-type: none"> <li>• name of the facility</li> <li>• north arrow</li> <li>• effective date of the diagram</li> <li>• overall facility layout</li> <li>• sumps</li> <li>• solids separators</li> <li>• wastewater impoundments/ storage tanks</li> <li>• zones within the surface disposal / fields within the land application area with identification and acreage labeled</li> <li>• groundwater monitoring wells</li> <li>• irrigation wells</li> <li>• meters estimating/measuring wastewater discharges to surface disposal areas</li> <li>• meters measuring wastewater applied to the surface disposal / land application area</li> <li>• wastewater distribution pipelines</li> <li>• each ditch irrigation system, acequia, irrigation canal and drain</li> <li>• backflow prevention methods or devices</li> <li>• wastewater sampling locations</li> <li>• septic tanks and leachfields</li> </ul> <p>Any element that cannot shown due to its location inside of existing structures, or because it is buried without surface identification, shall be on the diagram in a schematic format and identified as such. [20.6.2.3106(C) NMAC, 20.6.2.3107(A) NMAC]</p>
<b>Operations and Maintenance</b>
<p>b) Operate in a manner such that standards and requirements of 20.6.2.3101 and 20.6.2.3103 NMAC are not violated.</p> <p>c) Repair or replace compromised pipe(s) or fixture(s) within 72 hours of discovery.</p>
<b>Inspection and Monitoring</b>
<p>d) Visually inspect all facility pipes and fixtures on a weekly basis for evidence of leaks or failure. [20.6.2.3107 NMAC]</p>
<b>Recordkeeping and Reporting</b>
<p>e) Maintain written records at the facility of any inspection(s), repairs and maintenance conducted on facility infrastructure as related the wastewater management system.</p> <p>f) Conduct the monitoring, reporting, and other requirements in accordance with the monitoring requirements of this Discharge Permit. [20.6.2.3107(A) NMAC, 20.6.2.3109(C) NMAC]</p> <p>g) Unless otherwise specified by this Discharge Permit, or approved in writing by NMED, the Permittee shall use sampling and analytical techniques that conform with the references listed in 20.6.2.3107 (B)</p>



**Table B1**  
**General Discharge Permit Conditions:**

NMAC
h) Unless otherwise identified in this Discharge Permit, submit monitoring reports to NMED quarterly according to the following schedule: [20.6.2.3107(A) NMAC]
<ul style="list-style-type: none"> <li>• January 1 through March 31 (first quarter) – report due by May 1</li> <li>• April 1 through June 30 (second quarter) – report due by August 1</li> <li>• July 1 through September 30 (third quarter) – report due by November 1</li> <li>• October 1 through December 31 (fourth quarter) – report due by February 1</li> </ul>
i) Retain required records for a minimum period of five years from the date of any sample collection, measurement, report or application in accordance with 20.6.2.3107 NMAC, 74-6-5 WQA.

- B. **Sumps** - The Permittee shall manage all sumps at the facility in accordance with 20.6.2.3107 and 20.6.2.3109 NMAC and the conditions summarized in **Table B2** below.

**Table B2**  
**EQ Tank and Sump**

<b>Engineering, Surveying and Construction and/or Improvements</b>
a) None required.
<b>Operations and Maintenance</b>
b) Maintain the Equalization (EQ) Tank and Sump to prevent conditions which could affect the structural integrity of the tank and sump. Such conditions include or may be characterized by the following: <ul style="list-style-type: none"> <li>• Erosion damage</li> <li>• Animal burrows or other damage</li> <li>• The presence of large debris or large quantities of debris in the sump</li> <li>• Evidence of seepage</li> <li>• The presence of vegetation, including aquatic plants, weeds, woody shrubs or trees growing within five feet of the top inside edge of a sub-grade sump, within five feet of the toe of the outside berm of an above-grade sump, or within the sump itself. Vegetation growing around the sump and tank shall be routinely controlled by mechanical removal in a manner that is protective of the sump</li> </ul>
<b>Inspection and Monitoring</b>
c) Visually inspect the Sump and EQ Tanks on a monthly basis to ensure proper condition and control vegetation growing around the structures.
d) Visually inspect pipes and fixtures on a weekly basis for evidence of leaks or failure. In areas where pipes and fixtures cannot be visually inspected because they are buried, visually inspect the area directly surrounding the features for evidence of leaks or failure (e.g., saturated surface soil, surfacing wastewater, etc.).

**Table B2**  
**EQ Tank and Sump**

<p>e) The Permittee shall collect composite wastewater samples from the sampling port on the discharge line from the EQ Tank to the surface disposal areas on a monthly (as applicable to seasonal production facilities) basis. The wastewater sampling shall be performed according to the following procedure:</p> <ul style="list-style-type: none"> <li>• Wastewater samples shall be collected from the sampling port one hour after the start of production, three hours after the start of production, and five hours after the start of production;</li> <li>• A single composite sample shall be created by combining equal volumes of the three grab samples; and</li> <li>• The composite sample shall be analyzed for NO<sub>3</sub>-N, TKN, TDS, Cl and pH. The Permittee shall record the sampling date, time production started, time of the first grab sample, time of second grab sample, time of third grab sample, and time production ended on a Wastewater Sampling Log (copy enclosed).</li> </ul> <p>The Wastewater Sampling Log, analytical results and laboratory reports shall be submitted to NMED in the <b>Quarterly Monitoring Report</b>.</p>
<p><b>Recordkeeping and Reporting</b></p>
<p>f) Report any unauthorized discharges to NMED pursuant to 20.6.2.1203 NMAC.</p> <p>g) Unless otherwise specified in this Discharge Permit, submit all monitoring information in accordance with the general reporting schedule listed in Table B1 of this Discharge Permit.</p> <p>h) Notify NMED within 24 hours of discovery of any observed Sump or EQ Tank condition(s) that may impact the structural integrity of a berm or liner or that may result in an unauthorized discharge. [20.6.2.3107 NMAC]</p> <p>i) Maintain written records at the facility of all facility inspections including repairs and replacements.</p>

- C. **Surface Disposal Area Management** - The Permittee shall manage all surface disposal areas at the facility in accordance with 20.6.2.3101 NMAC and the conditions summarized in **Table B3** below.

**Table B3**  
**Surface Disposal Area Management**

<p><b>Engineering and Surveying</b></p>
<p>a) Within 90 days following the effective date of this Discharge Permit (<b>by DATE</b>), the Permittee shall install 12-inch to 18-inch berms around the fields within the surface disposal area to prevent surface water run-on and run-off. Within 30 days of berm completion, the Permittee shall submit documentation to NMED of berm installation consisting of a written description of the berm locations.</p> <p>b) Prior to discharge to all surface disposal areas without infrastructure to distribute wastewater, the Permittee shall install PVC piping to distribute wastewater to the fields within the surface disposal</p>

**Table B3**  
**Surface Disposal Area Management**

area, and submit photographic documentation and a written statement confirming the date(s) of installation.
c) Any irrigation or supply wells located within the land application area shall have a surface pad constructed in accordance with the recommendations of 19.27.4.29(G) NMAC and a permanent well cap or cover pursuant to 19.27.4.29(I) NMAC.
<b>Operations and Maintenance All Surface Disposal Areas</b>
d) Prior to discharge, install one or more surface disposal distribution system(s) to distribute wastewater to one or more fields as approved by NMED.
e) The Permittee shall discharge wastewater to each field within the surface disposal area such that the amount of total nitrogen discharged does not exceed 200 pounds per acre in any 12-month period. Nitrogen content shall not be adjusted to account for volatilization or mineralization processes. Wastewater shall be distributed evenly throughout the entire disposal area. Excessive ponding shall be prevented. <ul style="list-style-type: none"> <li>As a contingency, the permittee has agreed with GWQB, that if the permittee meets or begins to exceed the 200 lbs/acre/year nitrogen surface disposal area loading limit on all of the fields, having no fields left to apply to without exceeding, the permittee will notify NMED and cease discharging to the surface disposal areas for the remainder of the year until the new year commences.</li> </ul>
<b>Inspection and Monitoring All Surface Disposal Areas</b>
f) The Permittee shall visually inspect the PVC piping on a monthly basis to ensure proper maintenance. Any damage to PVC piping shall be repaired within 30 days of discovery. The Permittee shall document all inspection findings and repairs made in a log kept on-site that is available to NMED upon request.
g) The Permittee shall maintain 18-inch to 24-inch berms around the surface disposal area to prevent surface water run-on and run-off. The berms shall be inspected on a regular basis and after any major precipitation event, and repaired as soon as possible following discovery of the damage.
<b>Recordkeeping and Reporting All Surface Disposal Areas</b>
h) The Permittee shall complete Surface Disposal Data Sheets (SDDS; copy enclosed) on a monthly basis that document the amount of nitrogen applied to each field within the surface disposal area during the most recent 12 months. The SDDS shall reflect the total nitrogen concentration from the most recent wastewater analysis and the measured discharge volumes to each field within the surface disposal area for each month. The SDDS shall be completed with information above or shall include a statement that wastewater disposal did not occur. The SDDS shall be submitted to NMED in the <b>Quarterly Monitoring Report</b> .

- D. **Solids Management** - The Permittee shall manage all solids at the facility in accordance with 20.6.2.3101 NMAC and the conditions summarized in **Table B4** below.

**Table B4**  
**Solids Management**

<b>Engineering and Surveying</b>
a) None required.
<b>Operations and Maintenance</b>
b) The Permittee shall store and remove solids separated from the wastewater in a manner and frequency necessary to prevent the contamination of groundwater. Solids collected by the screen separator and removed from the separator and sump shall be contained, transported, and disposed of in accordance with all local, state, and federal regulations. <b>Disposal of solids on the surface disposal area is prohibited.</b> Solids shall be contained in a waste disposal bin prior to being hauled offsite for final disposal.
<b>Inspection and Monitoring</b>
c) The Permittee shall inspect the concrete sump on a quarterly basis and clean as needed to prevent pump failure. The Permittee shall maintain a record of sump inspections, repairs and cleanings. Solids generated in the processing area shall be stored and transported off-site in accordance with the conditions of this Discharge Permit.
<b>Recordkeeping and Reporting</b>
d) The Permittee shall, at all times, have the log of sump inspections, repairs, and cleanings available for NMED review.

- E. **Flow Meters** – Pursuant to 20.6.2.3107 (A) and 20.6.2.3109 (C), the Permittee shall employ a flow metering system that uses flow measurement devices (flow meters) to measure the volume(s) of wastewater transferred and land applied at the facility. All flow meters employed at the facility shall be managed in accordance with the conditions listed in **Table B5** below.

**Table B5**  
**Flow Meters**

<b>Engineering and Surveying</b>
a) None required.
<b>Operations and Maintenance</b>
b) Prior to discharge to the surface disposal areas, install the following flow meter: <ul style="list-style-type: none"> <li>• <b>Meter #1</b> – to be located on the discharge line between the tank pump and the surface disposal areas. Measure the volume of wastewater discharged from the EQ Tank to the surface disposal areas.</li> </ul>
c) All flow meters shall be calibrated in accordance with the manufacturer's requirements prior to installation or reinstallation following repair.
<b>Inspection and Monitoring</b>
d) The Permittee shall measure the monthly volume of wastewater discharged to each of the surface disposal areas from the EQ Tank. The Permittee shall obtain readings from a totalizing flow meter (Meter #1) located on the discharge line between the EQ Tank and the surface disposal areas on a monthly basis and calculate the monthly and average daily volume discharged to the EQ Tank and

**Table B5**  
**Flow Meters**

surface disposal areas. The monthly meter readings, and calculated monthly and average daily discharge volumes shall be submitted to NMED in the **Quarterly Monitoring Report**.

- e) Contingent, based on if the facility has to truck wastewater to an offsite Wastewater Treatment Facility permitted to accept such wastewater: The Permittee shall provide documentation of a formal agreement for the facility to accept the wastewater, evidence of the volume of the tank truck and count the number of loads hauled to the wastewater treatment facility, to determine the volume of wastewater hauled offsite. Partial loads shall be measured via a site gauge, dipstick, or other approved method.
- f) The Permittee shall measure the monthly volume discharged from the EQ tank to each field within the surface disposal areas using a totalizing flow meter. The meter (Meter #1) shall be located on the discharge line between the EQ Tank and the surface disposal area. The Permittee shall maintain a log that records the date that discharges occur to each field, monthly totalizing meter readings and units of measurement. The log shall be used to calculate the total monthly volume of wastewater discharged to each field. The monthly volume discharged to each field shall be used on the SDDS to calculate nitrogen loading. A copy of the log shall be submitted to NMED in the **Quarterly Monitoring Report**.
- g) Visually inspect flow meter on a weekly basis for evidence of malfunction. If a visual inspection indicates a flow meter is not functioning to measure flow, the Permittee shall initiate repair or replacement of the meter within 30 days of discovery.

**Recordkeeping and Reporting**

- h) Within 30 days of meter installation, submit a **Confirmation of Installation** report to NMED that includes: a description of the device type, manufacturer, meter identification, location, record drawings, and a copy of the manufacturer's certificate of calibration and a copy of the manufacturer's recommended maintenance schedule.
- i) Maintain copies of the manufacturer's certificate of calibration and the manufacturer's recommended maintenance schedule at the facility.
- j) Record of meter readings at intervals not to exceed monthly. The average daily discharge volume for each recording interval shall be calculated by dividing the difference between the meter readings by the number of days between meter readings.
- k) Record meter readings (without adjustments or deductions) and submit in the **Quarterly Monitoring Report**. Include the date, time and units of each measurement, and calculations for the average daily volumes of wastewater discharged from the processing area, reported in gallons per day.
- l) For meters requiring repair, submit a report to NMED with the subsequent monitoring report following the repair that includes a description of the malfunction, a statement verifying the repair, and a copy of the manufacturer's or repairer's certificate of calibration.
- m) For meters requiring replacement, submit a report to NMED with the subsequent monitoring report following the replacement that includes plans for the device, a copy of the manufacturer's certificate of calibration, and a copy of the manufacturer's recommended maintenance schedule.

**Table B5**  
**Flow Meters**

n) The Permittee shall maintain a log of repairs. The log shall be available, at all times, for NMED inspection.

- F. **Monitoring Wells** - Pursuant to 20.6.2.3107 (A) and 20.6.2.3109 (C), the Permittee is required to install monitoring wells at appropriate depths and locations to monitor groundwater quality. The approved groundwater monitoring well system at the facility is detailed in Table B6 below.

**Table B6**  
**Groundwater Monitoring Wells**

<b>Engineering and Surveying</b>	
a) None required.	
<b>Operations and Maintenance</b>	
b) At least 180 days prior to discharging to Area 5, Area 6, and Area 7, the Permittee shall install and complete the following additional groundwater monitoring wells:	
<ul style="list-style-type: none"> <li>• <b>MW-5</b> – intended to be hydrologically upgradient of the north field at the facility, to be located north of the northwest corner of Area 5 (aka the North Field), at 32°14'36.31", - 107°48'25.40".</li> <li>• <b>MW-6</b> – intended to be hydrologically downgradient of the facility and located near the southeast corner of the facility at approximately 32° 14" 23'N, 107° 48" 18'W.</li> <li>• <b>MW-7</b> – intended to be hydrologically upgradient of all possible sources of contamination, and located on the northern boundary of the facility at 32° 14" 36' N, 107° 48" 34 W.</li> </ul>	
All new wells shall be completed in accordance with the attachment titled <i>Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions, Revision 1.1, March 2011</i> . Construction and lithologic logs shall be submitted to NMED within 30 days of well completion.	
c) Following installation of the monitoring wells required by this Discharge Permit, the Permittee shall sample groundwater in the wells and analyze the samples for dissolved TKN, NO <sub>3</sub> -N, TDS and Cl. Groundwater sample collection, preservation, transport and analysis shall be performed according to the following procedure:	
<ul style="list-style-type: none"> <li>• Measure the depth-to-most-shallow groundwater from the top of the well casing to the nearest hundredth of a foot.</li> <li>• Purge three well volumes of water from the well prior to sample collection.</li> <li>• Obtain samples from the well for analysis.</li> <li>• Properly prepare, preserve and transport samples.</li> <li>• Analyze samples in accordance with the methods authorized in this Discharge Permit.</li> </ul>	
Depth-to-most-shallow groundwater measurements, analytical results, including the laboratory QA/QC summary report, and a facility layout map showing the location and number of each well shall be submitted to NMED within 30 days of the completion of the monitoring well survey.	
<b>Inspection and Monitoring</b>	

**Table B6**  
**Groundwater Monitoring Wells**

- d) Perform quarterly groundwater sampling for all facility monitoring wells as identified in Section B101 A.3 and analyze the samples for dissolved TKN, NO<sub>3</sub>-N, TDS and Cl. Groundwater sample collection, preservation, transport and analysis shall be performed according to the following procedure:
- Measure the depth-to-most-shallow groundwater from the top of the well casing to the nearest hundredth of a foot.
  - Purge three well volumes of water from the well prior to sample collection.
  - Obtain samples from the well for analysis.
  - Properly prepare, preserve and transport samples.
  - Analyze samples in accordance with the methods authorized in this Discharge Permit.
- Depth-to-most-shallow groundwater measurements, analytical results, including the laboratory QA/QC summary report, and a facility layout map showing the location and number of each well shall be submitted to NMED in the **Quarterly Monitoring Report**.
- e) The Permittee shall develop a groundwater elevation contour map on a quarterly basis using the top of casing elevation data from the monitoring well survey and quarterly depth-to-most-shallow groundwater measurements obtained from the groundwater monitoring wells required by this Discharge Permit.
- The groundwater elevation contour map shall depict the groundwater flow direction based on the groundwater elevation contours. Groundwater elevations between monitoring well locations shall be estimated using common interpolation methods. A contour interval appropriate to the data shall be used, but in no case shall the interval be greater than two feet. Groundwater elevation contour maps shall depict the groundwater flow direction, using arrows, based on the orientation of the groundwater elevation contours, and the location and identification of each monitoring well and contaminant source. The groundwater elevation contour map shall be submitted to NMED in the **Quarterly Monitoring Report**.
- f) Prior to the expiration date of this Discharge Permit, NMED shall have the option to perform one downhole inspection of each monitoring well identified in this Discharge Permit. NMED shall establish the inspection date and provide at least 60 days' notice to the Permittee by certified mail. The Permittee shall have any existing dedicated pumps removed at least 48 hours prior to NMED inspection to allow adequate settling time of any sediment agitated as a result of pump removal.

**Recordkeeping and Reporting**

- g) Within 60 days following installation the Permittee shall survey all wells approved by NMED for Discharge Permit monitoring purposes to a U.S. Geological Survey (USGS) or other permanent benchmark. Survey data shall include northing, easting and elevation to the nearest hundredth of a foot or shall be in accordance with the "Minimum Standards for Surveying in New Mexico" (12.8.2 NMAC). A survey elevation shall be established at the top-of-casing, with a permanent marking indicating the point of survey. The survey shall bear the seal and signature of a licensed New Mexico professional surveyor (pursuant to the New Mexico Engineering and Surveying Practice Act and the rules promulgated under that authority).

**Table B6**  
**Groundwater Monitoring Wells**

Depth-to-most-shallow groundwater shall be measured to the nearest hundredth of a foot in all surveyed wells, and the data shall be used to develop a groundwater elevation contour map showing the location of all monitoring wells and the direction and gradient of groundwater flow at the facility. The data and groundwater elevation contour map shall be submitted to NMED within 30 days of survey completion.

h) A **Quarterly Monitoring Report** shall be filed with NMED in accordance with the general reporting schedule listed in **Table B1**. Each **Quarterly Monitoring Report** shall contain, at a minimum, the following information:

- Facility map with location and number of each well in relation to the contamination source it is intended to monitor
- Depth-to-shallowest groundwater measurements
- Field parameter measurements and parameter stabilization log
- Analytical results (including the laboratory quality assurance and quality control summary report)
- Groundwater elevation contour maps utilizing elevation contours of 2 ft or less

**B103 Facility: Conditions for Closure**

A. Upon closure of the facility, the Permittee shall perform the following closure measures:

1. The Permittee shall continue groundwater monitoring until the requirements of this condition have been met and groundwater monitoring confirms for a minimum of eight (8) consecutive quarterly groundwater sampling events that the standards of 20.6.2.3103 NMAC are not exceeded and toxic pollutants are not present in groundwater.

If monitoring results show that a groundwater quality standard in 20.6.2.3103 NMAC is exceeded, the total nitrogen concentration in groundwater exceeds 10 mg/L, or a toxic pollutant as defined in 20.6.2.7 NMAC is present in groundwater, the Permittee shall implement the contingency plan required by this Discharge Permit.

2. Following notification from NMED that post-closure monitoring may cease, the Permittee shall plug and abandon the monitoring well(s) in accordance with the attachment titled *Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions*, Revision 1.1, March 2011.
3. When all closure and post-closure requirements have been met, the Permittee may request to terminate the Discharge Permit [20.6.2.3109 NMAC, 20.6.2.3107. NMAC].

**B104 Facility: Contingency Plan**

A. In the event NMED or the Permittee identifies any failures of the Discharge Permit or system not specifically noted herein, NMED may require the Permittee to develop for NMED approval



a contingency or corrective action plan and schedule to cope with the failure(s) [20.6.2.3107.A(10) NMAC].

B. Facility conditions that will invariably require Permittee action under one or more contingency plans include:

1. **Exceedance of groundwater quality standards** – In the event that groundwater monitoring indicates that a groundwater quality standard identified in 20.6.2.3103 NMAC is exceeded; the total nitrogen concentration in groundwater is greater than 10 mg/L; or a toxic pollutant (defined in 20.6.2.7(T) NMAC) is present in a groundwater sample and in any subsequent groundwater sample collected from a monitoring well required by this Discharge Permit, the Permittee shall enact the following contingency plan:

Within 60 days of the subsequent sample analysis date, the Permittee shall propose measures to ensure that the exceedance of the standard or the presence of a toxic pollutant will be mitigated by submitting a corrective action plan to NMED for approval. The corrective action plan shall include a description of the proposed actions to control the source and an associated completion schedule. The plan shall be enacted as approved by NMED.

Once invoked (whether during the term of this Discharge Permit; or after the term of this Discharge Permit and prior to the completion of the Discharge Permit closure plan requirements), this condition shall apply until the Permittee has fulfilled the requirements of this condition and groundwater monitoring confirms for a minimum of two years of consecutive groundwater sampling events that the standards of 20.6.2.3103 NMAC are not exceeded and toxic pollutants are not present in groundwater.

2. **Ineffective groundwater monitoring well(s)** – In the event that information available to NMED indicates that a well(s) is not constructed in a manner consistent with the attachment titled *Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions, Revision 1.1, March 2011*; contains insufficient water to effectively monitor groundwater quality; or is improperly located the Permittee shall install a replacement well(s) and shall survey the replacement monitoring well(s) within 120 days following notification from NMED.

Replacement well location(s) shall be approved by NMED prior to installation and completed in accordance with the attachment titled *Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions, Revision 1.1, March 2011*. The Permittee shall submit construction and lithologic logs, survey data and a groundwater elevation contour map to NMED within 60 days following well completion.

Upon completion of the replacement monitoring well(s), the monitoring well(s) requiring replacement shall be properly plugged and abandoned. Well plugging, abandonment and documentation of the abandonment procedures shall be completed in accordance with the attachment titled *Ground Water Discharge Permit Monitoring Well Construction and Abandonment Conditions, Revision 1.1, March 2011*, and all applicable local, state, and federal regulations. The well abandonment documentation shall be submitted to NMED within 60 days of completion of well plugging activities.

3. **Exceedance(s) of permitted maximum daily discharge volume** - The maximum daily discharge volume authorized by this Discharge Permit is exceeded by more than ten percent for any four average daily discharge volumes within any 12-week period the Permittee shall submit a corrective action plan to reduce the discharge volume for NMED approval.
  4. **(200 lb/ac/yr) Exceedance(s) of Nitrogen Loading Limits** - In the event that the SDDS show that the amount of nitrogen in wastewater applied to [any zone within] the surface disposal area in any 12-month period exceeds 200 pounds per acre, the Permittee shall propose the reduction of nitrogen loading to the surface disposal area by submitting a corrective action plan to NMED for approval. The plan shall include a schedule for completion of corrective actions and shall be submitted within 90 days following the end of the monitoring period in which the exceedance occurred. The Permittee shall initiate implementation of the plan following approval by NMED.
  5. **Spills, leaks, unauthorized discharge** – Any spill or release that is not authorized under this Discharge Permit. the Permittee shall comply with the requirements of 20.6.2.1203 NMAC, and shall submit to NMED all information or documentation required by the applicable portions of 20.6.2.1203 NMAC.
- C. The Permittee may be required to abate water pollution pursuant to 20.6.2.4000 through 20.6.2.4115 NMAC, should the corrective action plan not result in compliance with the standards and requirements set forth in 20.6.2.4103 NMAC within 180 days of confirmation of groundwater contamination.

## **PART C GENERAL TERMS AND CONDITIONS**

### **C100 Legal**

- A. Nothing in this Discharge Permit in any way, relieves the Permittee of the obligation to comply with all applicable federal, state, and local laws, regulations, permits or orders [20.6.2 NMAC].
- B. Pursuant to 20.6.2.3109 NMAC, NMED reserves the right to require a Discharge Permit Modification in the event NMED determines that the requirements of 20.6.2 NMAC are being or may be violated or the standards of 20.6.2.3103 NMAC are being or may be violated. This may include a determination that structural controls and/or management practices approved under this Discharge Permit are not protective of groundwater quality, and NMED may require more stringent actions to protect groundwater quality. NMED may require the Permittee to implement abatement of water pollution and remediate groundwater quality.
- C. Any violation of the requirements and conditions of this Discharge Permit, including any failure to allow NMED staff to enter and inspect records or facilities, or any refusal or failure to provide NMED with records or information, may subject the Permittee to a civil enforcement action. Pursuant to WQA 74-6-10(A) and (B), such action may include a compliance order requiring compliance immediately or in a specified time, assessing a civil penalty, modifying or terminating the Discharge Permit, or any combination of the foregoing;

or an action in district court seeking injunctive relief, civil penalties, or both. Pursuant to WQA 74-6-10(C) and 74-6-10.1, civil penalties of up to \$15,000 per day of noncompliance may be assessed for each violation of the WQA 74-6-5, the 20.6.2 NMAC, or this Discharge Permit, and civil penalties of up to \$10,000 per day of noncompliance may be assessed for each violation of any other provision of the WQA, or any regulation, standard, or order adopted pursuant to such other provision. In any action to enforce this Discharge Permit, the Permittee waives any objection to the admissibility as evidence of any data generated pursuant to this Discharge Permit. [74-6-10 WQA, 74-6-10.1 WQA]

- D. Pursuant to WQA 74-6-10.2(A-F), NMED may assess criminal penalties for any person who knowingly violates or knowingly causes or allows another person to:
1. Make any false material statement, representation, certification or omission of material fact in an application, record, report, plan or other document filed, submitted or required to be maintained under the WQA;
  2. Falsify, tamper with or render inaccurate any monitoring device, method or record required to be maintained under the WQA; or
  3. Fail to monitor, sample or report as required by a permit issued pursuant to a state or federal law or regulation, is subject to felony charges and shall be sentenced in accordance with the provisions of 31-18-15 NMSA 1978.
- E. The Permittee shall notify the proposed transferee in writing of the existence of this Discharge Permit and include a copy of this Discharge Permit with the notice in accordance with 20.6.2.3111 NMAC, prior to the transfer of any ownership, control, or possession of this permitted facility or any portion thereof. The transferee(s) shall notify NMED, in writing, of the date of transfer of ownership and provide contact information for the new owner(s) pursuant to 20.6.2.3111(B) NMAC. Submit to NMED notification of the transfer within 30 days of the ownership transfer date. [20.6.2.3111 NMAC]
- F. Pursuant to WQA 74-6-5(o), the Permittee has a right to appeal the conditions and requirements as outlined in this Discharge Permit through filing a petition for review before the WQCC. Such petition shall be in writing to the WQCC within thirty (30) days of the receipt of this Discharge Permit. Unless a timely petition for review is made, the decision of NMED shall be final and not subject to judicial review.

#### **C101 General Inspection and Entry Requirements**

- A. Nothing in this Discharge Permit limits in any way, the inspection and entry authority of NMED under the WQA, 20.6.2 NMAC, or any other applicable law or regulation. [20.6.2.3107 NMAC, 74-6-9(B) & (E) WQA]
- B. The Permittee shall allow the Secretary or an authorized representative, upon the presentation of credentials, to [20.6.2.3107.D NMAC, 74-6-9(B) & (E) WQA]:

1. Enter at regular business hours or at other reasonable times upon the Permittee's premises or other location where records must be kept under the conditions of this Discharge Permit, 20.6.2 NMAC, or any other applicable law or regulation.
2. Inspect and copy, during regular business hours or at other reasonable times, any records required to be kept under the conditions of this Discharge Permit, 20.6.2 NMAC, or any other applicable law or regulation.
3. Inspect, at regular business hours or at other reasonable times, any facility, equipment (including monitoring and control equipment or treatment works), practices or operations regulated or required under this Discharge Permit, 20.6.2 NMAC, or any other applicable law or regulation.
4. Sample or monitor, at reasonable times for the purpose of assuring compliance with this Discharge Permit or as otherwise authorized by the WQA, any effluent, water contaminant, or receiving water at any location before or after discharge.

**C102 General Record Keeping and Reporting Requirements**

A. The Permittee shall maintain a written record of the following:

1. Amount of wastewater, effluent, leachate or other wastes discharged pursuant to this Discharge Permit. [20.6.2.3107.A NMAC]
2. Operation, maintenance, and repair of all facilities/equipment used to treat, store or dispose of wastewater; to measure flow rates, to monitor water quality, or to collect other data required by this Discharge Permit. Per 20.6.2.3107(A) NMAC, this record shall include:
  - a. Repair, replacement or calibration of any monitoring equipment
  - b. Repair or replacement of any equipment used in the Permittee's waste or wastewater treatment and disposal system.
3. Any spills, seeps, and/or leaks of effluent, and of leachate and/or process fluids not authorized by this Discharge Permit. [20.6.2.3107.A NMAC]

B. The Permittee shall maintain at its facility a written record of all data and information related to field measurements, sampling, and analysis conducted pursuant to this Discharge Permit. The following information shall be recorded and shall be made available to NMED upon request:

1. The dates, exact place and times of sampling or field measurements;
2. The name and job title of the individuals who performed each sample collection or field measurement;
3. The date of the analysis of each sample;
4. The name and address of the laboratory and the name and job title of the person that performed the analysis of each sample;

5. The analytical technique or method used to analyze each sample or take each field measurement;
  6. The results of each analysis or field measurement, including raw data;
  7. The results of any split sampling, spikes or repeat sampling; and
  8. A description of the quality assurance (QA) and quality control (QC) procedures used.
- C. The Permittee shall furnish to NMED, within a reasonable time, any documents or other information which it may request to determine whether cause exists for modifying, terminating and/or renewing this Discharge Permit or to determine compliance with this Discharge Permit. The Permittee shall also furnish to NMED, upon request, copies of documents required to be kept by this Discharge Permit. [20.6.2.3107.D NMAC, 74-6-9(B) & (E) WQA]

#### **C103 Modifications and/or Amendments**

- A. The Permittee shall notify NMED of any changes to the Permittee's wastewater treatment and disposal system, including any changes in the wastewater flow rate or the volume of wastewater storage, or of any other changes to operations or processes that would result in any significant change in the discharge of water contaminants. The Permittee shall obtain NMED's approval, as a modification to this Discharge Permit pursuant to 20.6.2.3109 E, F, or G NMAC, prior to any increase in the quantity discharged, or any increase in the concentration of water contaminants discharged, above those levels approved in this Discharge Permit [20.6.2.3107.C NMAC].
- B. The Permittee shall file plans and specifications with NMED for the construction of a wastewater system and for proposed changes that will change substantially the quantity or quality of the discharge from the system. The Permittee shall file plans and specifications prior to the commencement of construction. Changes to the wastewater system having a minor effect on the character of the discharge shall be reported as of January 1 and June 30 of each year to NMED. [20.6.2.1202 NMAC]

#### **Part D MISCELLANEOUS**

##### **D100 Acronyms**

CL.....	chloride
CQA .....	construction quality assurance
CQC.....	construction quality control
DP .....	discharge permit
FEMA .....	Federal Emergency Management Administration
FIRM .....	flood insurance rate map
gpd .....	gallon per day
LADS .....	land application data sheet(s)

mg/L .....	milligram per liter
mL.....	milliliters
NMAC .....	New Mexico Administrative Code
NMED .....	New Mexico Environment Department
NMP .....	Nutrient Management Plan
NMSA .....	New Mexico Statutes Annotated
NO <sub>3</sub> -N .....	nitrate as nitrogen
SDDS .....	surface disposal data sheet(s)
TDS .....	total dissolved solids
TKN.....	total Kjeldahl nitrogen
WQA .....	New Mexico Water Quality Act
WQCC .....	Water Quality Control Commission